Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-31 (Cancelled)

32 (Currently Amended). A reactive probe chip for detecting target functional molecules, comprising:

one or a plurality of first carrier probes, wherein said first carrier probe is a porous carrier in the form of a particle, having immobilized within the pores thereof a first reactive substance capable of bonding a first target molecule;

one or a plurality of second carrier probes, wherein said second carrier probe is a porous carrier in the form of a particle, having immobilized within the pores thereof a second reactive substance capable of bonding a second target molecule; and

a substrate material,

wherein said one or a plurality of first carrier probes and said one or a plurality of second carrier probes are immobilized on a surface of said substrate material~~.~~, with the proviso that the porous carrier of said first and second carrier probes is other than silica gel.

33 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein said first and second reactive substances are selected from the group consisting of oligonucleotides, enzymes, antigens, antibodies, epitopes or proteins.

34 (Previously Presented). A reactive probe chip in accordance with claim 33, wherein said first and second reactive substances are oligonucleotides.

35 (Previously Presented). A reactive probe chip in accordance with claim 34, wherein said oligonucleotides are synthesized directly on said porous carrier.

36 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein said porous carrier has a pore size within the range of 10 nm to 1 μm.

37 (Previously Presented). A reactive probe chip in accordance with claim 36, wherein said pore size is a minimum of 50 nm.

38 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein said first and second carrier probes are immobilized on the surface of the said substrate material by means of an adhesive.

39 (Currently Amended). A reactive probe chip in accordance with claim 32, wherein said porous carrier is a porous glass~~, silica gel~~ or ion-exchange resin.

40 (Previously Presented). A reactive probe chip in accordance with claim 39, wherein said porous carrier is a porous glass.

41 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein said substrate material is an inorganic or organic substrate.

42 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein said porous carrier particles have a particle size of 1 μm to 100 μm.

43 (Previously Presented). A reactive probe chip in accordance with claim 42, wherein said porous carrier particles have a particle size of 3 μm to 20 μm.

44 (Previously Presented). A reactive probe chip in accordance with claim 32, wherein a plurality of said first carrier particle probes and a plurality of second carrier particle probes are immobilized on said substrate material surface, each in a discrete microcompartment.

45 (Previously Presented). A reactive probe chip in accordance with claim 44, wherein a plurality of additional carrier particle probes, each carrying a different additional reactive substance immobilized thereon, is also immobilized on the surface of said substrate material, each in its own discrete microcompartment.

46 (Previously Presented). A reactive probe chip in accordance with claim 45, wherein said discrete microcompartments are arranged in an array.

47 (Previously Presented). A reactive probe chip in accordance with claim 46, wherein said array has 100 to about 10,000 microcompartments per cm^2 of surface.

48 (Previously Presented). A method for fabrication of a reactive probe chip in accordance with claim 32, comprising:

immobilizing said first and second reactive substances within the pores of said first and second porous carriers to form first and second loaded carriers; and

immobilizing said first and second loaded carriers on a surface of said substrate material.

49 (Previously Presented). A method in accordance with claim 48, wherein said first and second reactive substances are selected from the group consisting of oligonucleotides, enzymes, antigens, antibodies, epitopes or proteins.

50 (Previously Presented). A method in accordance with claim 49, wherein said first and second reactive substances are oligonucleotides.

51 (Previously Presented). A method in accordance with claim 50, wherein said oligonucleotides are immobilized on said porous carriers by synthesizing said oligonucleotides directly on said porous carriers.

52 (Previously Presented). A method in accordance with claim 48, wherein said porous carrier has a pore size within the range of 10 nm to 1 μm.

53 (Previously Presented). A method in accordance with claim 50, wherein said pore size is a minimum of 50 nm.

54 (Previously Presented). A method in accordance with claim 48, wherein said step of immobilizing said first and second loaded carriers on a surface of said substrate material comprises immobilizing said loaded carriers on the surface of said substrate material by means of an adhesive.

55 (Currently Amended). A method in accordance with claim 48, wherein said porous carrier is a porous glass~~,~~ ~~silica gel~~ or ion-exchange resin.

56 (Previously Presented). A method in accordance with claim 55, wherein said porous carrier is a porous glass.

57 (Previously Presented). A method in accordance with claim 48, wherein said substrate material is an inorganic or organic substrate.

58 (Previously Presented). A method in accordance with claim 48, wherein said porous carrier particles have a particle size of 1 μm to 100 μm.

59 (Previously Presented). A method in accordance with claim 58, wherein said porous carrier particles have a particle size of 3 μm to 20 μm.

60 (Previously Presented). A method in accordance with claim 48, wherein a plurality of said first carrier particle probes and a plurality of second carrier probes are immobilized on said substrate material surface, each in a discrete microcompartment.

61 (Previously Presented). A method in accordance with claim 60, wherein a plurality of additional carrier particle probes, each carrying a different additional reactive substance immobilized thereon is also immobilized on the surface.

62 (Previously Presented). A method in accordance with claim 61, wherein said discrete microcompartments are arranged in an array.

63 (Previously Presented). A method in accordance with claim 62, wherein said array has 100 to about 10,000 microcompartments per cm^2 of surface.

64 (Currently Amended). A DNA chip for detecting target DNA, comprising:

one or a plurality of first carrier probes, wherein said first carrier ~~particle~~ probe is a porous carrier in the form of a particle, having immobilized within the pores thereof a first reactive substance capable of bonding a first target DNA;

one or a plurality of second carrier probes, wherein said second carrier probe is a porous carrier in the form of a particle, having immobilized within the pores thereof a second reactive substance capable of bonding a second target DNA; and

a substrate material,

wherein said one or a plurality of first carrier probes and said one or a plurality of second carrier probes are placed on a surface of said substrate material~~.~~, with the proviso that the porous carrier of said first and second carrier probes is other than silica gel.

65 (Previously Presented). A DNA chip in accordance with claim 64, wherein said first and second reactive substances are oligonucleotides.

66 (Previously Presented). A DNA chip in accordance with claim 65, wherein said oligonucleotides are synthesized directly on said porous carrier.

67 (Previously Presented). A DNA chip in accordance with claim 64, wherein said porous carrier has a pore size within the range of 10 nm to 1 μm.

68 (Previously Presented). A DNA chip in accordance with claim 67, wherein said pore size is a minimum of 50 nm.

69 (Previously Presented). A DNA chip in accordance with claim 64, wherein said first and second carrier probes are immobilized on the surface of the said substrate material by means of an adhesive.

70 (Currently Amended). A DNA chip in accordance with claim 64, wherein said porous carrier is a porous glass~~,~~ ~~silica gel~~ or ion-exchange resin.

71 (Previously Presented). A DNA chip in accordance with claim 70, wherein said porous carrier is a porous glass.

72 (Previously Presented). A DNA chip in accordance with claim 64, wherein said substrate material is an inorganic or organic substrate.

73 (Previously Presented). A DNA chip in accordance with claim 64, wherein said porous carrier particles have a particle size of 1 μm to 100 μm.

74 (Previously Presented). A DNA chip in accordance with claim 73, wherein said porous carrier particles have a particle size of 3 μm to 20 μm.

75 (Previously Presented). A DNA chip in accordance with claim 64, wherein a plurality of said first carrier particle probes and a plurality of second carrier particle

probes are placed on said substrate material surface, each in a discrete microcompartment.

76 (Previously Presented). A DNA chip in accordance with claim 75, wherein a plurality of additional carrier particle probes, each carrying a different additional reactive substance immobilized thereon, is also placed on the surface of said substrate material, each in its own discrete microcompartment.

77 (Previously Presented). A DNA chip in accordance with claim 76, wherein said discrete microcompartments are arranged in an array.

78 (Previously Presented). A DNA chip in accordance with claim 77, wherein said array has 100 to about 10,000 microcompartments per cm^2 of surface.

79 (Previously Presented). A method for fabrication of a DNA chip in accordance with claim 64, comprising:

immobilizing said first and second reactive substances within the pores of said first and second porous carriers to form first and second loaded carriers; and

placing said first and second loaded carriers on a surface of said substrate material.

80 (Previously Presented). A method in accordance with claim 79, wherein said first and second reactive substances are oligonucleotides.

81 (Previously Presented). A method in accordance with claim 80, wherein said oligonucleotides are immobilized

on said porous carriers by synthesizing said oligonucleotides directly on said porous carriers.

82 (New). A method in accordance with claim 79, wherein said porous carrier has a pore size within the range of 10 nm to 1 μm.

83 (Previously Presented). A method in accordance with claim 80, wherein said pore size is a minimum of 50 nm.

84 (Previously Presented). A method in accordance with claim 79, wherein said step of placing said first and second loaded carriers on a surface of said substrate material comprises immobilizing said loaded carriers on the surface of said substrate material by means of an adhesive.

85 (Currently Amended). A method in accordance with claim 79, wherein said porous carrier is a porous glass~~,~~ ~~silica gel~~ or ion-exchange resin.

86 (Previously Presented). A method in accordance with claim 85, wherein said porous carrier is a porous glass.

87 (Previously Presented). A method in accordance with claim 79, wherein said substrate material is an inorganic or organic substrate.

88 (Previously Presented). A method in accordance with claim 79, wherein said porous carrier particles have a particle size of 1 μm to 100 μm.

89 (Previously Presented). A method in accordance with claim 88, wherein said porous carrier particles have a particle size of 3 μm to 20 μm.

90 (Previously Presented). A method in accordance with claim 79, wherein a plurality of said first carrier particle probes and a plurality of second carrier probes are placed on said substrate material surface, each in a discrete microcompartment.

91 (Previously Presented). A method in accordance with claim 90, wherein a plurality of additional carrier particle probes, each carrying a different additional reactive substance immobilized thereon is also placed on the surface.

92 (Previously Presented). A method in accordance with claim 91, wherein said discrete microcompartments are arranged in an array.

93 (Previously Presented). A method in accordance with claim 92 wherein said array has 100 to about 10,000 microcompartments per cm^2 of surface.